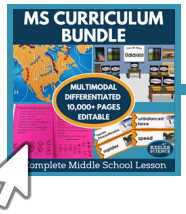
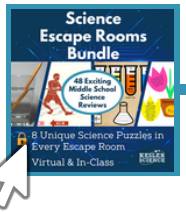
What Can Kesler Science Do for You?

4th - 8th grade science teachers love our Life, Earth, and Physical Science materials! With these easy and engaging materials, teachers can save planning time and put their focus back on the teaching that really matters.



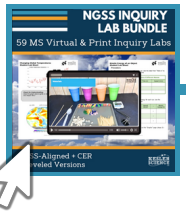
5E LESSONS

Two-week lessons with over 100 topics



ESCAPE ROOMS

Engaging activities for review

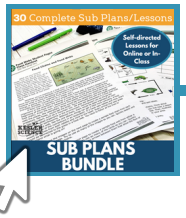


INQUIRY LABS

Three different levels to fit every student

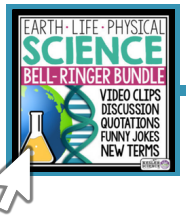
AMAZING ANCHORS

Anchoring phenomenon to book-end your lessons



SUB PLANS

Never worry about planning for a sub again.



WARM-UPS

Bellringers for the entire year

STATION LABS

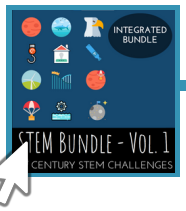
Student-led exploration

INTERACTIVE NOTEBOOKS

Bring science journals to life.

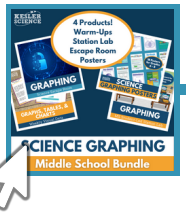
WIKI TICKETS

Quick formative assessments



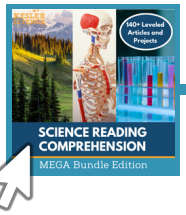
STEM CHALLENGES

Real-world STEM problem-solving



GRAPHING

Table and charts and graphs ... OH MY!

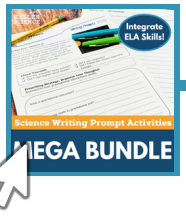


SCIENCE READING COMPREHENSION

Leveled reading passages with mini-activities

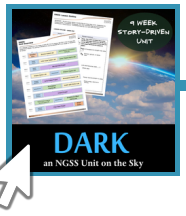
SPANGLER COLLABORATION

Exclusive Steve Spangler lessons and videos



WRITING PROMPTS

Writing activities covering 100+ topics



EXPLORIES

Story-driven units with integrated activities

The Kesler Science Professional Learning Network (PLN) group on Facebook has a huge community of engaged and supportive science teachers - come join us!

KESLER SCIENCE

Name: _____

Date: _____

Don't Eat the Cane Toad!

Australia's yellow-spotted monitor is a lizard you wouldn't want to mess with. It stretches out to 5 feet long, has a vicious, venomous bite, and sits on top of the Australian desert food chain as an apex predator. 🦾 So why are their population numbers plummeting? 🤔

To answer this question, let's go back to the 1930's. A lucrative crop grown in Australia at that time was sugarcane. The sugarcane was under attack by its native to the area. This type of beetle would lay eggs and hatch as larvae underground, damaging the root systems of the plants. This made it tough to exterminate the pests using traditional methods.

A plan was made to bring in a species of animal that would find just such a beetle a tasty treat. Enter *Bufo marinus,* or the cane toad of South and Central America. Unfortunately, what started off as a clever plan to avoid chemical pesticides turned into an ecological problem that spiraled out of control.

The cane toad's biggest adaptation is its ability to produce a deadly toxin as an adult. This bold toad will not run away from predators, almost defying them to take a bite. When predators like the yellow-spotted monitor do consume the cane toad, it doesn't take long for the toxin to take its lethal toll. The monitor lizard is not the only predator suffering the effects of the invasive toad species. Scientists have noticed that native birds, turtles, and even crocodiles are dying off due to the toxic toad.

What's wild is, within the 90 years that the cane toad has been living in Australia, it has had some major adaptations. Cane toad legs have been growing larger, which allows them to travel up to 37 miles during migration. In 2023, a behemoth female cane toad was uncovered and brought to a museum. The monster was affectionately called, "Toadzilla," weighing in at 6 pounds!!

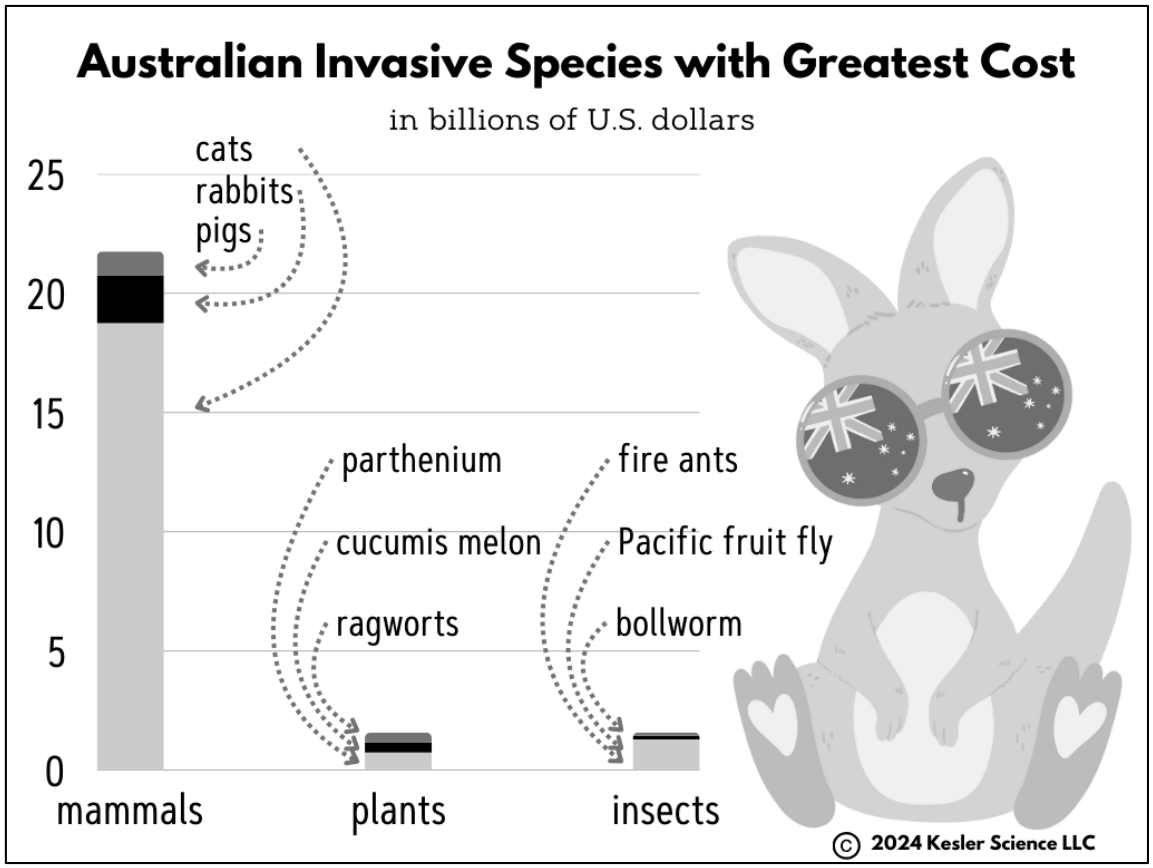
What started off as several thousand toads in the 1930's has ballooned into a population of more than 200 million. The worst part? There has been no noticeable difference in the sugarcane beetle population. 😖

Scientists aren't really sure on how to tackle the cane toad problem in a humane way. Ideas like introducing sterile males to compete for resources or genetically modifying the toads have all been proposed, but nothing has been put into motion yet.

The good news is that there's hope for the predators like the yellow-spotted monitor. These lizards are smart, and scientists have been experimenting with training the monitors. They expose the monitors to cane toad eggs and tadpoles which have just enough toxin to make the lizards sick, but not enough to kill them. Monitors in the experiment learn to avoid the adult cane toad and seek out other prey instead.

Australia is no stranger to invasive species. The government faces the cost created by these organisms, costs caused by trying to get rid of those species and by fixing the damage they cause. Check out the graph on the next page.

Don't Eat the Cane Toad!



1. Which is the most expensive Australian invasive species to deal with according to the graph? Why do you predict this is the case?

_____

_____

_____

2. Which insect is the costliest?

_____

_____

3. Why might governments spend money to deal with invasive species?

_____

_____

_____

Weekly Phenomenon Graphing Activity Teacher Key

Blog Link: https://blog.keslerscience.com/phenomenon-and-graphing/invasive-canetoad

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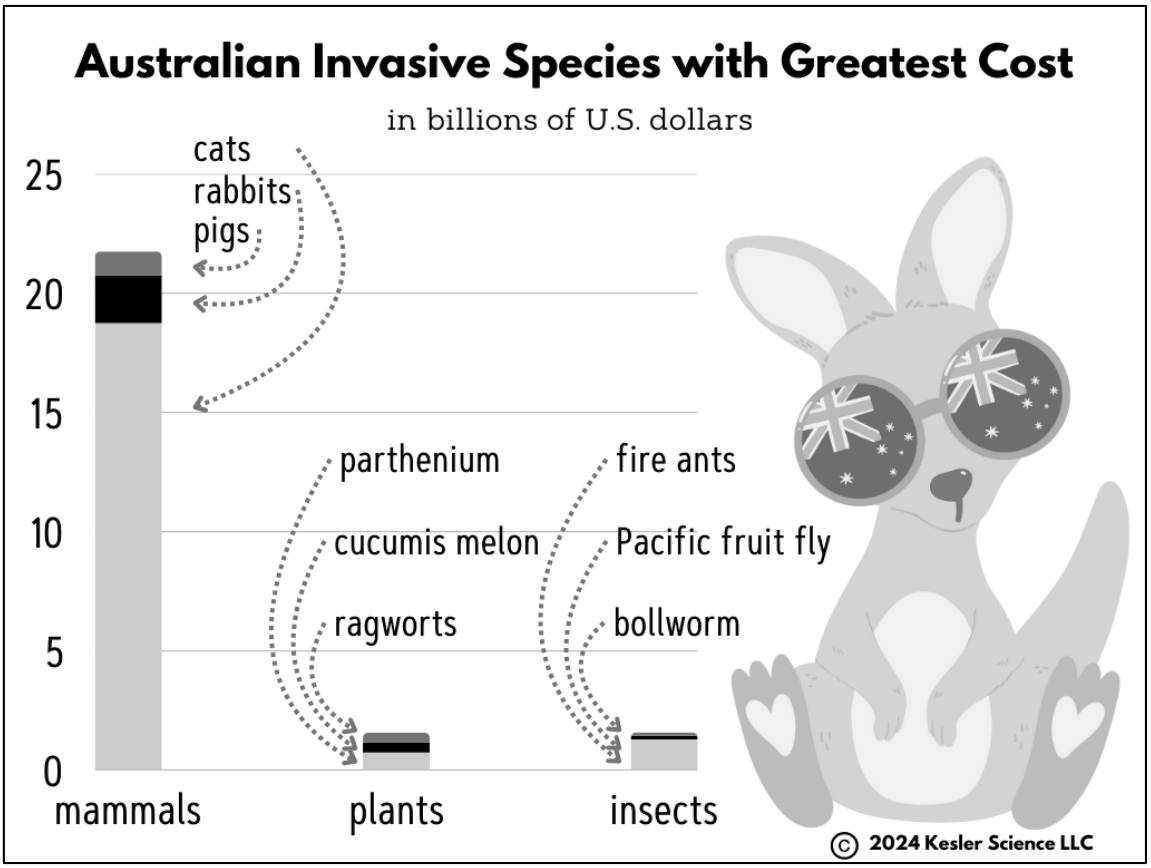
Weekly Phenomenon
Graphing Activity
Teacher Key

Don't Eat the Cane Toad!



1. Which is the most expensive Australian invasive species to deal with according to the graph? Why do you predict this is the case?

   Cats rack up the highest bill at almost $19 billion. This may be because of harm to bird populations or efforts to control feral cat populations.

2. Which insect is the costliest?

   Fire ants are the most expensive insect.

3. Why might governments spend money to deal with invasive species?

   Students might predict that money is spent to protect crops, avoid fires, or to prevent native species from dying off.

Your students might be shocked to see the impact of invasive species on the ecosystem AND the economy!